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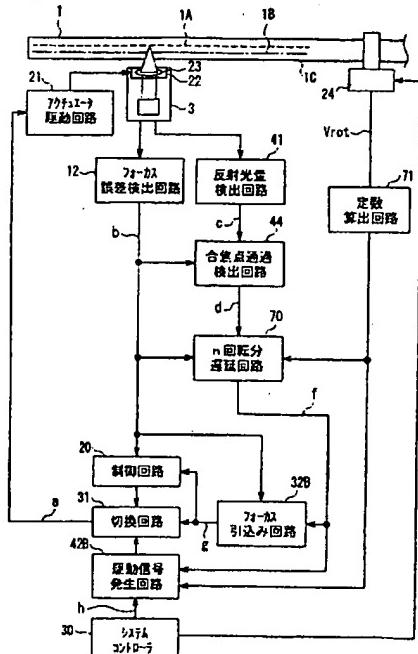
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- (71) 出願人(米国を除く全ての指定国について): 松下電器産業株式会社 (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.) [JP/JP]; 〒5718501 大阪府門真市大字門真1006番地 Osaka (JP).
- (72) 発明者; および
(75) 発明者/出願人(米国についてのみ): 吉川 昭 (YOSHIKAWA, Akira). 山田 真一 (YAMADA, Shin-ichi).
- (74) 代理人: 特許業務法人池内・佐藤アンドパートナーズ (IKEUCHI SATO & PARTNER PATENT ATTORNEYS); 〒5306026 大阪府大阪市北区天満橋1丁目8番30号OAPタワー26階 Osaka (JP).
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(54) Title: OPTICAL DISC CONTROLLER

(54) 発明の名称: 光ディスク制御装置



- 21 ACTUATOR DRIVING CIRCUIT
- 12 FOCUS ERROR DETECTING CIRCUIT
- 41 QUANTITY OF REFLECTED LIGHT DETECTING CIRCUIT
- 44 FOCUS POINT PASSAGE DETECTING CIRCUIT
- 70 N-ROTATION DELAY CIRCUIT
- 71 CONSTANT CALCULATING CIRCUIT
- 20 CONTROL CIRCUIT
- 31 SWITCHING CIRCUIT
- 42B DRIVING SIGNAL GENERATING CIRCUIT
- 30 SYSTEM CONTROLLER
- 32B FOCUS DRAWING CIRCUIT

(57) Abstract: An optical disc controller capable of drawing focus in a short time for the target information plane of an optical disc having a plurality of information planes. An objective lens is brought close to the optical disc having a plurality of information planes by the output signal from a driving signal generating circuit. When a focus point passage detecting circuit detects passage of a first focus position and the objective lens is brought closer from that position to the optical disc by a specified amount, an n-rotation delay circuit outputs a reversal command f. After the objective lens was withdrawn from the optical disc while altering the orientation thereof, a focus drawing circuit switches a signal (a) being delivered to an actuator drive circuit from the driving signal generating circuit to a control circuit output signal and actuates the control circuit to draw the focus.

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SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
UZ, VC, VN, YU, ZA, ZM, ZW.

NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG,
CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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添付公開書類:
— 國際調査報告書

2文字コード及び他の略語については、定期発行される各PCTガゼットの巻頭に掲載されている「コードと略語のガイダンスノート」を参照。

(57) 要約:

複数の情報面を有する光ディスクの目標情報面に対して短時間でフォーカス引き込みを行うことの可能な光ディスク制御装置を提供する。駆動信号発生回路の出力信号で対物レンズを複数の情報面を有する光ディスクに近づけていき、合焦点通過検出回路により最初の合焦点位置の通過が検出され、その位置からさらに所定量だけ対物レンズが光ディスクに近づくと、n回転分遅延回路が反転指令fを出力し、対物レンズの向きを変えて光ディスクから遠ざけた後、フォーカス引き込み回路が、アクチュエータ駆動回路に出力する信号aを、駆動信号発生回路から制御回路の出力信号に切り換えると共に、制御回路を起動してフォーカス引き込みを行う。

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/005510

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl⁷ G11B7/085, 7/125

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ G11B7/085, 7/125

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 Jitsuyo Shinan Koho 1922-1996 Toroku Jitsuyo Shinan Koho 1994-2004
 Kokai Jitsuyo Shinan Koho 1971-2004 Jitsuyo Shinan Toroku Koho 1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 10-27357 A (Kenwood Corp.), 27 January, 1998 (27.01.98), Full text; Figs. 1 to 15 (Family: none)	1-18
A	JP 11-167727 A (Sony Corp.), 22 June, 1999 (22.06.99), Full text; Figs. 1 to 13 (Family: none)	1-18
A	JP 11-265511 A (Sony Corp.), 28 September, 1999 (28.09.99), Full text; Figs. 1 to 5 (Family: none)	1-18

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
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- "P" document published prior to the international filing date but later than the priority date claimed

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- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

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12 May, 2004 (12.05.04)

Date of mailing of the international search report
01 June, 2004 (01.06.04)

Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

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International application No.
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2002-373431 A (Kabushiki Kaisha Hitachi LGData Storage), 26 December, 2002 (26.12.02), Full text; Figs. 1 to 13 (Family: none)	1-18